

## ABSTRACT

We consider a  $k$ -person sequential bargaining model in which both the surplus to be allocated as well as the identity of the proposer in each period follows a stochastic process. Assuming only one agent makes an offer in each period and agreement must be unanimous, we provide characterizations of both the subgame perfect payoffs and stationary subgame perfect payoffs when the cake is a simplex (of random size) and the players share a common discount factor. Our analysis incorporates several models of sequential bargaining which build on the work of Rubinstein (1982). We also investigate conditions under which agreement will be delayed and extend existing results for the uniqueness of subgame perfect and stationary subgame perfect payoffs to the stochastic game. JEL Classification Numbers: C73, C78. Key Words: Non Cooperative Bargaining, Dynamic Games, Stochastic Games.